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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,320	11/26/2003	Yang Hwan No	0465-1083P	8405
2292	7590	12/29/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			RIGGLEMAN, JASON PAUL	
ART UNIT		PAPER NUMBER		
1746				
SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE		DELIVERY MODE	
3 MONTHS	12/29/2006		ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 12/29/2006.

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mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)
	10/721,320	NO ET AL.
	Examiner	Art Unit
	Jason P. Riggleman	1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-13 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 26 November 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____. C	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Drawings

1. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "58" and "68" have both been used to designate "switch", see paragraphs [0067] - [0070] of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "70a". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "30" in Fig. 1, "54b" in Fig. 6, and "76" in Fig. 8. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In the instant application, the abstract uses the word "disclosed" to describe the invention.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/721,321 because the scope of the claim of the copending application is inside the scope of claim 1.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For purposes of examination, it is assumed the "to be brought into contact".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being unpatentable by Fujiyama (US Patent No. 4977298).

8. Fujiyama teaches a control panel (panel switch), Fig. 15b, of a washing machine (Column 1, Lines 16-17). The lever is independently disposed into a small size thus decreasing the manufacturing cost of the panel switch. (Column 2, Lines 0-21). A display panel (upper casing 31) has openings 32 where buttons (knobs 30) are located. The knobs 30 are between the lower casing 27 (frame provided on a cabinet to form an exterior, Fig. 15b) and the upper casing 31, Fig. 4. A display substrate 22 in rear of the display panel 31 has at least one switch 26 formed thereon (Column 3, Lines 36-54). The switch lever 30 (distal end of knob unit) has one end fixed to a backside of the display panel and the other end disposed over the switch, the switch lever operating the switch by receiving an external force applied to the button. A lever loading part is formed on the backside of the display panel and the switch lever is coupled with the lever loading part. A button protrusion is formed at a bottom of the button 30 to be brought into contact with the top of the switch lever 21, a protrusion is formed at a top (bottom of the button 30) of the switch lever to be brought into contact with the switch lever 21, and a bent part (distal end of 21 containing the diaphragm) is formed at one end of the switch lever 21. A rotational protrusion is formed at the first lever 30 (distal end of knob unit) and a coupling recess is formed so that the first lever is fitted into the coupling recess. Also, Fujiyama teaches the coupling of a first lever to the backside of a display panel.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 2-5 and 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiyama (US Patent No. 4977298) as applied to claim 1 above, and further in view of Mironenko et al. (UK Patent Application Publication GB 2178899A) or Mironenko et al. (French Patent No. FR 2581236).

11. In regards to claim 2 and 10, Fujiyama does not teach a second lever coupled with the first lever to turn on/off the switch according to an operation of the first lever; however Mironenko et al. teaches a first lever (actuating lever 4) and a second lever (contact lever 6) in which the second lever is coupled with the first lever to turn on/off the switch according to an operation of the first lever, Figs. 1-2. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujiyama with Mironenko et al. to create a dual-lever switch so as to control the torque (pressure) requirements needed to depress the button and actuate the switch.

12. In regards to claim 4, Fujiyama does not teach that the first lever is coupled to a second lever; however, Mironenko et al. teaches the rotatable coupling of a first lever 4 and second lever 6 to a common frame 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujiyama with Mironenko et

al. to create a dual-lever switch which is coupled in the backside of the display (and not in front of display impairing ability to function).

13. In regards to claim 5, Fujiyama does not teach multiple lever fixing parts (since there is only one lever); however, Mironenko et al. teaches lever fixing parts for each lever, Figs. 1-2. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujiyama with Mironenko et al. to create a dual-lever switch which is fixed at the backside of the display (and not in front of display impairing ability to function) and allows fixing of each lever separately, to the display panel, so as to allow spring-loaded rotational movement.

14. In regards to claims 7-8, Fujiyama does not teach an elastic member between the display panel and the first or second lever return; however, Mironenko et al. teaches an elastic member 11 (plate spring) which is provided between the top of the second lever and returns the levers to the original state. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujiyama with Mironenko et al. to create a dual-lever switch which is fixed at the backside of the display (and not in front of display impairing ability to function) and allows the common snap-action return seen in switches -- due to spring compression.

15. In regards to claim 9, Fujiyama and Mironenko et al. do not teach a zig-zag shaped elastic member. It has been held that changes in shape would have been obvious (*In re Daily* 149 USPQ 47). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujiyama with Mironenko et al. to create a dual-lever switch for a control panel with a elastic member of a different shape.

16. In regards to claims 12-13, Fujiyama does not teach a bent part formed at a central portion of the second lever and a rib provided at the bent part; however, Mironenko et al. teaches a bent part 18 formed a central portion of the second lever 6 and a rib 12 provided at the bent part for rigidity reinforcement. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujiyama with Mironenko et al. to create a dual-lever switch which is fixed at the backside of the display (and not in front of display impairing ability to function) and has a bent part 18 in the second lever with a rib to create a lever pivoting portion which is durable.

Allowable Subject Matter

17. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Flumignan et al. (US Patent No. 4431884) and Nagahara et al. (US Patent No. 5017747) which teach a snap-action switch and microswitch, both with internal lever actuators, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Riggleman whose telephone number is 571-272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason P Riggleman
Examiner
Art Unit 1746

JPR



MICHAEL BARR
SUPERVISORY PATENT EXAMINER